

REMARKS

Claims 1-12 are pending.

Claims 1-12 stand rejected.

Claims 1-3 have been amended.

Claim 1 has been added.

Claims 1-13 are presented herein for further consideration on the merits.

No new matter has been added.

In paragraph 1 of the Office Action, the Examiner has rejected claims 2-3 under 35 U.S.C. § 112 for a minor antecedent basis issue. Applicants have amended these claims accordingly and respectfully request that the rejection of these claims be withdrawn.

In paragraphs 2 and 3 of the Office Action, the Examiner has continued the previous rejection of claims 1-12 under 35 U.S.C. § 103(a) as being unpatentable over Kim (U.S. Patent No. 6563,994) in view of Perrin (U.S. Patent No. 6,576,166).

Applicants respectfully disagree with the Examiner and submit the following remarks in response.

The present invention as claimed in claim 1 is directed to a method of fabricating a graded index plastics material optical fiber whose refractive index varies between its center and its periphery. Among other steps, the method includes producing a liquid preform in a preform formation system with a refractive index having a given gradient, wherein after the liquid preform exits the said preform formation system *with a viscosity*

from 1 to 5 Pa.s., the liquid perform is spun outside the perform formation system to obtain the graded index plastics material optical fiber.

As noted in paragraph [0078] of the present invention such an arrangement facilitates implementing of the perform formation because this range of viscosity gives relatively fluid compositions, responding better to ultrasound vibration.

Although such an element was not rejected in the present Office Action, the Examiner had previously cited, in the June 25, 2007 Office Action, to column 4, lines 13-19 of Perrin claiming that perform is formed in the range of 1-5 Pa.s.

However, as noted in lines 13-15 of column 4 of Perrin, the viscosity range of 1 Pa.s to 25 Pa.s that is discussed in this paragraph is not related to the forming of the preform but is only related to the mixing step. As noted directly thereafter in lines 20-27 of column 4, the perform is formed at the much greater viscosity of 50 Pa.s - 100 Pa.s. In fact, lines 23-27 states that this range serves advantageously to facilitate implementing the method of the invention (of Perrin) since such viscosity enables compositions to be spun that are relatively stiff.

Applicants separately note that the other cited reference Kim likewise does not teach the forming of a liquid perform at a viscosity in the range of 1 -5 Pa.s.

As such, Applicants submit that the cited prior art, either alone or combined as suggested by the Examiner, do not teach or suggest all of the elements of independent claim 1. For example, there is no teaching or suggestion in either Perrin or Kim that discloses the liquid preform exits the preform formation system with a viscosity from 1 to 5 Pa.s.

For at least this reason, Applicants submit that the prior art does not teach all of the elements of independent claim 1 and respectfully request that the rejection of this claim be withdrawn. Likewise, as claims 2-12 depend from independent claim 1, these claims should be allowed for at least the same reasons.

Separately, new independent claim 13 of the present invention relates to a method of fabricating a graded index plastics material optical fiber. The method includes, among other elements, isolating the compositions in a first area of the perform formation system during the filling and producing a liquid preform in a second area of the preform formation system. In the preform formation system the first area and second area have at least one common portion and as many concentric enclosures of a given axis and given internal dimension as there are compositions injected into the preform formation system.

An external enclosure of the preform formation system is extended axially by a member with varying internal dimensions and one or more internal enclosures of the perform formation system are removable and longer than the external enclosure.

Support for these elements are found in paragraphs [0043], [0044] and [0057] of the present invention. As noted in paragraph [0042] the formation of the perform in this manner achieves an improved control over the required index gradient.

Applicants submit that the cited prior art, either alone or combined as suggested by the Examiner, do not teach or suggest all of the elements of new independent claim 13. The cited Perrin and Kim references do not maintains such steps as describe above

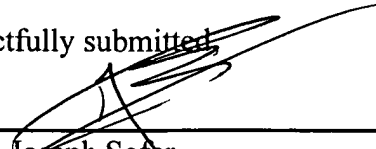
For at least this reason, Applicants submit that the prior art does not teach all of the elements of independent claim 13 and respectfully request that the rejection of independent claim 1 not be carried over to new independent claim 13.

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In view of the foregoing, Applicants respectfully submit that the pending claims 1-13 are in condition for allowance, the earliest possible notice of which is earnestly solicited. If the Examiner feels that an interview would facilitate the prosecution of this Application he is invited to contact the undersigned at the number listed below.

Respectfully submitted,

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